

Rayora: Effective Disease Control, Exceptional Turf

The new DMI fungicide protects turf from a variety of diseases, including dollar spot and brown patch.

FMC Corporation will present its latest product, Rayora, at the Golf Industry Show. Featuring one active ingredient, flutriafol, Rayora is a highly systemic sterol biosynthesis inhibitor fungicide (commonly classified as a DMI fungicide) with preventative and early curative control of key turfgrass diseases.

Rayora can be rapidly translocated through turfgrass via leaves and roots. Furthermore, it disrupts the demethylation of key enzymes in fungal cells, which inhibits the sterol biosynthesis of ergosterol.

"Ergosterol is crucial to cell membrane development in fungi," says Dr. Ken Hutto, FMC Corporation product development manager. "The loss of ergosterol results in cell membrane leakage, which greatly impacts fungal cell growth."



Dr. Ken Hutto

Multiple research trials were conducted at universities across the United States, including North Carolina State University and Ohio State University. During the trials, Rayora demonstrated

control on several diseases, including dollar spot, brown patch, summer patch, spring dead spot and gray leaf spot.

Golf course superintendents also have



Exceptional quality. A metropolitan Philadelphia course recently trialed Rayora, the latest fungicide from FMC Corporation, on its creeping bentgrass tees.

overseen trials at their courses, including a superintendent currently at a course in the metropolitan Philadelphia area.

Throughout this particular trial, which began Aug. 30, 2019, the superintendent oversaw three applications done at two-week intervals. The primary focus was dollar spot on a creeping bentgrass tee box. The superintendent created four plots, one with an application rate of 1.4 fluid ounces of Rayora per 1,000 square feet, one with a one-time spray of Rayora, one with a post-patent tebuconazole application and an untreated control plot.

No dollar spot lesions appeared on the

plot with 1.4 fluid ounces per 1,000 square feet of Rayora, and turf quality remained exceptional. The superintendent observed no phytotoxicity and was pleased with the results, particularly since DMI fungicides usually injure turfgrass when sprayed at elevated temperatures during the summer.

"Rayora offers a wide range of uses on creeping bentgrass fairways, along with ultradwarf bermudagrass greens," explains Dr. Hutto. "Not only has it demonstrated effective preventative and early curative dollar spot control, it has also provided effective control against other turf diseases golf course superintendents commonly face."

As the superintendent of the metropolitan Philadelphia-based golf course looks ahead, he notes Rayora likely will become a part of his chemical program long-term. The value of the DMI fungicide is simply too significant to ignore.



The control plot at a Philadelphia course (left) shows signs of dollar spot, while a plot treated with Rayora (right), two weeks after application, is clear of the disease.



PHOTOS BY: DAVE MOSER (TOP), FMC